AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A cable telephony network interface unit (NIU), said NIU comprising:

a radio frequency (RF) cable input for receiving RF telephony signals, wherein said telephony signals comprise a time division multiplexed (TDM) RF signal having a frame rate and a corresponding frame period;

an RF tuner for processing said TDM RF signal, wherein said tuner has an acquisition time of less than half of said frame period, whereby said tuner is pulsed on for signal acquisitions, and pulsed off between signal acquisitions, and wherein said acquisition time is a time to lock on to a desired frequency; and

a voice telephony device compatible output for providing an output from said tuner to a telephony device.

2. (Previously Presented) The NIU of claim 1, wherein said acquisition time is less than one-fourth of said frame period.

3. (Original) The NIU of claim 1, wherein said acquisition time is less than about 5 milliseconds.

4. (Original) The NIU of claim 1, wherein said acquisition time is less than about 1 millisecond.

5. (Original) The NIU of claim 1, wherein said tuner comprises fractional-N generated local oscillator reference frequency signals.

6. (Previously Presented) The NIU of claim 5, wherein said tuner comprises multiple phase locked loops (PLLs) generating said tuner's local oscillator reference frequency signals.

7. (Original) The NIU of claim 6, wherein said PLLs comprise a wide loop bandwidth.

8. (Previously Presented) The NIU of claim 7, wherein said wide loop bandwidth is greater than said reference frequencies.

9. (Previously Presented) The NIU of claim 7, wherein said wide loop bandwidth is greater than about 1 KHz.

10. (Original) The NIU of claim 1, wherein said TDM is time division multiple access (TDMA).

11. (Previously Presented) The NIU of claim 1, wherein said TDM RF signal is further multiplexed using code division multiple access (CDMA).

12. (Previously Presented) The NIU of claim 1, wherein said tuner comprises components, and most of said tuner's components are located on a single integrated circuit.

13. (Original) The NIU of claim 1, wherein said RF telephony signals further comprise a continuous wave (CW) signal, and said tuner is capable of processing said CW signal.

14. (Original) The NIU of claim 13, wherein said NIU receives electrical power via said cable input when said tuner is processing said TDM RF signal, and receives electrical power from a different source when processing said CW signal.

15. (Original) The NIU of claim 1, further comprising a demodulator interposed between said voice telephony device compatible output and said tuner.

16. (Previously Presented) The NIU of claim 15, wherein said demodulator demodulates according to a first modulation type when said NIU receives electrical power from an external source, and switches to demodulating according to a second modulation type when said NIU receives power via said cable input.

17. (Currently Amended) A method for processing cable telephony signals, said method comprising:

receiving a time division multiplexed (TDM) RF cable signal from a cable input, said TDM RF signal comprising frames having time slots;

pulsing on a fast acquisition time tuner for an allocated time slot in each of said frames, said tuner for processing said TDM RF signal, and wherein said acquisition time is a time to lock on to a desired frequency; and

pulsing off said tuner for substantially the remainder of time in each of said frames, said frames having a frame period, wherein said acquisition time is less than one-fourth of said frame period, and wherein said frame period is equal to the time between the beginning of a first allocated time slot and the beginning of a second allocated time slot.

18. (Original) The method of claim 17, wherein said TDM RF signal is received during a loss of power from an external source.

19. (Original) The method of claim 18, further comprising receiving power from said cable input during said loss of power from said external source.

20. (Original) The method of claim 18, further comprising sending an alert signal to a cable plant after said loss of power from said external source, to inform said cable plant of said loss of power.

21. (Original) The method of claim 18, further comprising:

receiving and processing a continuous wave (CW) RF cable signal before said loss of power; and

switching to said receiving of said TDM RF cable signal after said loss of power.

22. (Original) The method of claim 17, wherein said TDM is time division multiple access (TDMA).

23. (Previously Presented) The method of claim 17, wherein said TDM RF signal is further multiplexed using code division multiple access (CDMA).

24. (Canceled)

25. (Original) The method of claim 17, wherein said acquisition time is less than about 5 milliseconds.

26. (Original) The method of claim 17, wherein said acquisition time is less than about 1 millisecond.

27. (Original) The method of claim 17, wherein said tuner comprises fractional-N generated local oscillator reference frequency signals.

28. (Previously Presented) The method of claim 27 further comprising generating said tuner's local oscillator reference frequency signals with multiple phase locked loops (PLLs).

29. (Original) The method of claim 28, wherein said PLLs comprise a wide loop bandwidth.

30. (Previously Presented) The method of claim 29, wherein said wide loop bandwidth is greater than said reference frequencies.

31. (Previously Presented) The method of claim 29, wherein said wide loop bandwidth is greater than about 1 KHz.

32. (Original) The method of claim 17, further comprising demodulating an output signal from said tuner.

33. (Previously Presented) The method of claim 32, further comprising demodulating according to a first modulation type when electrical power is received from an external source, and switching to demodulating according to a second modulation type when electrical power is received via said cable input.

34. (Currently Amended) A cable telephony tuner, said tuner comprising:

means for receiving a time division multiplexed (TDM) RF cable signal from a cable input, said TDM RF signal comprising frames having time slots;

means for pulsing on a fast acquisition time tuner for an allocated time slot in each of said frames, said tuner for processing said TDM RF signal, wherein said acquisition time is a time to lock on to a desired frequency; and

means for pulsing off said tuner for substantially the remainder of time in each of said frames, said frames having a frame period, wherein said fast acquisition time tuner is operable to lock on to said TDM RF signal in a time equal to or less than a quarter of a time period between consecutive said allocated time slots.

35. (Original) The tuner of claim 34, wherein said TDM RF signal is received during a loss of power from an external source.

36. (Original) The tuner of claim 35, further comprising means for receiving power from said cable input during said loss of power from said external source.

37. (Original) The tuner of claim 35, further comprising means for sending an alert signal to a cable plant after said loss of power from said external source, to inform said cable plant of said loss of power.

38. (Original) The tuner of claim 35, further comprising:

means for receiving and processing a continuous wave (CW) RF cable signal before said loss of power; and

means for switching to said receiving of said TDM RF cable signal after said loss of power.

39. (Original) The tuner of claim 34, wherein said TDM is time division multiple access (TDMA).

40. (Canceled)

41. (Original) The tuner of claim 34, wherein said tuner comprises fractional-N generated local oscillator reference frequency signals.

42. (Previously Presented) The tuner of claim 41 further comprising generating said tuner's local oscillator reference frequency signals with multiple phase locked loops (PLLs).

43. (Original) The tuner of claim 42, wherein said PLLs comprise a wide loop bandwidth.

44. (Previously Presented) The tuner of claim 43, wherein said wide loop bandwidth is greater than said reference frequencies.

45. (Previously Presented) The method of claim 43, wherein said wide loop bandwidth is greater than about 1 KHz.

46. (Original) A method for providing lifeline support in cable telephony, said method comprising:

receiving electrical power from an external power source;

receiving a continuous wave (CW) RF cable signal from a cable input;

processing said CW RF signal with an RF tuner;

losing power from said external power source;

switching to receive said electrical power from said cable input;

receiving a TDM RF telephony signal in place of said CW RF signal, said TDM RF signal comprising frames have time slots; and

pulsing said tuner on during an allocated time slot in each of said frames and off for substantially the remainder of each of said frames, whereby power consumption by said tuner is significantly reduced when said external power is lost.

47. (Original) The method of claim 46, further comprising sending an alert signal to a cable plant after losing said external power to inform said cable plant of said external power loss.

48. (Original) The method of claim 46, wherein said CW RF signal comprises video, data and voice information.